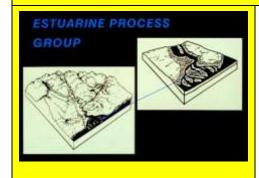
## **Estuarine Process Group**











Associated landforms: Estuary (71)

Sideslope Length/Angle: Not significant StreamBankComposition: Alluvium ESSf - Silt Substrate Estuarine Channel or Slough (former-ES1)

An estuarine silt substrate channel.

Stream Gradient: <0.5%

Incision Depth: <4 m (13 ft)

Bankfull Width: <20 m (66 ft)

Dominant Substrate: Silt/clay to sand

<u>Plant Association</u>: Nonforested, with S.Spruce/Cottonwood significant

Similar Channel Types:

<u>FPS</u>: associated with beach/dune landforms, sand substrate

FPB: not in intertidal zone

ESSg: sand substrate, mountain runoff, <10m wide

<u>GES</u>: very broad anastomosized channel, associated with glacial outwash channels

ESSg - Narrow Small (Sand to Gravel) Substrate Estuarine Channel (former-ES2)

A narrow, low gradient, shallowly incised channel. Quality habitat >ESSc.

Stream Gradient: ≤ 1% Incision Depth: <3 m (10 ft) Bankfull Width: Variable, usually <10 m (33 ft)

<u>Dominant Substrate</u>: Sand to gravel

<u>Plant Association</u>: Nonforested - forbs & grasses, W.Hemlock significant

Similar Channel Types:

ESL: width >10 m (33 ft) ESSc: steeper gradient up to 3%, larger substrate

ESSc - Narrow Large (Coarse Gravel to Boulders) Substrate Estuarine Channel (former -ES3)

A low gradient, shallowly incised, small rocky channel with small bars.

Stream Gradient: <3%

Incision Depth: <3 m (10 ft)
Bankfull Width: Variable, usually <10 m

<u>Dominant Substrate</u>: Fine gravel to small boulder

<u>Plant Association</u>: Nonforested - forbs & grasses, Sitka Spruce significant

Similar Channel Types:

ESL: gradient <2%, width >10 m (33 ft) ESSg: gradient <1%, finer substrate

Sediment Function: Stream Class:

Storage Class I and II **Estuarine Process Group** 



ESL - Large Estuarine Channel (former -ES4)

A large, low gradient, shallowly incised, alluvial-tidal zone channel.

Stream Gradient: <2%
Incision Depth: <5 m (16.5 ft)
Bankfull Width: >10 m (33 ft)

<u>Dominant Substrate</u>: Gravel to cobble

<u>Plant Association</u>: Nonforested - sedges & grasses

Phases: ESLd

Similar Channel Types:

ESSc: width <10 m (33 ft), larger substrate ESSg: width <10 m (33 ft), GES: active glaciers in drainage basin, FPM: not associated with estuary



**GES** - Broad Braided Glacial Outwash Estuarine Channel (former -ES8)

A very wide, shallow, braided, tidal zone, glacial melt water channel.

Stream Gradient: <1.5% Incision Depth: <2 m (6.6 ft)

Bankfull Width: Variable, normally a very wide, braided delta

**Dominant Substrate**: Sand to coarse gravel

<u>Plant Association</u>: Salt tolerant grasses and sedges

Similar Channel Types:

<u>GOB</u>: not subject to tidal influence <u>ESL</u>: not associated with glacial systems